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AMSAT NEWS SERVICE
ANS-061

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://amsat.org publishes news of Amateur Radio in space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat dot org.

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ANS-061 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 061.01
>From AMSAT HQ KENSINGTON, MD.
March 01, 2020
To All RADIO AMATEURS
BID: $ANS-061.01

Upcoming SpaceX CRS-20 Launch

The spouse of ARISS Hardware team member Ed Krome, K9EK, pointed out that the ARISS next generation radio system, the InterOperable Radio System (IORS) is prominently described as a primary payload, not secondary, on the SpaceX CRS-20 mission which will be launched no earlier than March 6, 2020 (ET).

The ARISS Team wants to express our heartfelt thanks to everyone that has contributed to helping ARISS realize this major milestone

It should be noted that the ARISS hardware team is still very busy on IORS development and final certification. While certified for launch and stowage on ISS, the team is still in deep into the final certification of the IORS for flight operations. Also, the build of

the second flight unit is in progress in Florida and in San Diego. While CRS-20 represents the launch of SN 1001, the first flight unit, it also represents the beginning of the "ARISS factory build" and certification of all ten units.

The ARISS team also notes that November 13, 2020 will represent the 20th year of ARISS continuous amateur radio operation on ISS!

[ANS thanks Frank Bauer, KA3HDO AMSAT Vice President, Human Space Flight for the above information.]

FO-29 Operational Schedule

The operation of Fuji 3 (FO-29) has been unstable, but the transmitter will be turned on in the next pass. Since the date and time are in UTC, add 9 hours to convert to Japan time.

The operation is until the UVC (lower limit voltage control) operates.

[Scheduled time to turn on the analog transmitter of Fuji 3 (UTC)]

March 1 04:00- 14:05
March 2 04:45- 14:55
March 7 03:40- 05:25- 13:50
March 8 04:30- 06:15- 14:40
March 14 04:15- 06:00- 14:25
March 15 03:25- 05:10- 15:15
March 21 03:10- 04:55- 15:00
March 22 04:00- 05:45- 14:05
March 28 03:45- 05:30- 13:50
March 29 04:35- 06:20- 14:40

Because of data acquisition, besides this operation plan, the transmitter may be turned on for a short time.

[ANS thanks JARL for the above information.]

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with inclusion of additional experimental equipment.

It will operate with AX.25 protocol to collect telemetry data. In partnership with the W4AQL Georgia Tech Amateur Radio Club, the satellite will also host a digital contact ROBOT payload, inspired by the Russian ham satellites RS-12 and RS-13. It will collect QSO information from individuals who contact the ROBOT as it orbits. The satellite will also function as a standard digipeater. Proposing a 9k6 UHF downlink using G3RUH FSK modulation. Planning a JAXA deployment from the ISS in October 2020. A downlink on 437.175 MHz has been coordinated.

[ANS thanks IARU for the above information.]

K7UAZ Radio Club Helps Prepare Satellite Radio Station for Space Camp at Biosphere 2

In preparation for the upcoming Space Camp at Biosphere 2 , members of the University of Arizona K7UAZ Amateur Radio Club are helping with the placement of an Amateur Radio satellite ground station. The first step was to mount the Yaesu G-5500 az-el rotor system to a Rohn 45 tower. The complete station will include circularly polarized M2 beam antennas for 2m and 70cm, an Icom IC-9700, computers and tracking software.

Curt Laumann, K7ZOO, Station Manager for the K7UAZ club reports that Space Camp management is enthusiastic about having UAZ students help with the installation and setup of the station. Student involvement will also include calibrating the rotator system, mapping the artificial horizon for the tracking software and integration and testing the tracking software with the radio.

Now in its third year, Space Camp at Biosphere 2 will be held August 3-8, 2020. Space Camp at Biosphere 2 is a joint effort with the University of Arizona Biosphere 2, the Arizona NASA Space Grant Consortium, and the University of Kyoto, Japan. Students attending the camp will experience college-level curriculum and activities focusing on the biological/environmental facets of space travel.

More information on Space Camp at Biosphere 2 is available at https://spacegrant.arizona.edu/research/spacecamp

[ANS thanks Curt Laumann, K7ZOO for the above information.]

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is pending: The capacity of the NB transponder will be expanded from about 250 KHz to almost 500 KHz.

In addition to extended areas for the various operating modes, more space is also being created in particular for "mixed mode" and other special operating cases. In addition to frequencies reserved for emergency radio operations, more experiments are to be made possible here.

But all this only with a maximum bandwidth of 2.7 kHz. Automatic operation requires a special license from the local licensing authorities and must be coordinated with the operator beforehand; this task is performed by AMSAT-DL on behalf of QARS and Es'hailSat. To take account of user behavior, AMSAT-DL has almost doubled the SSB range in particular.

Detailed information is available at
https://amsat-dl.org/en/neuer-qo-100-bandplan/

[ANS thanks AMSAT-DL for the above information.]

ARISS News

* Upcoming Contacts

River Ridge High School, New Port Richey, FL.
Direct via WA3YFQ.
The scheduled astronaut is Drew Morgan KI5AAA.
The contact is a go for Tuesday, March 3, 2020, 15:17:44 UTC.

[ANS thanks Charlie Sufana, AJ9N for the above information.]

Hamfests, Conventions, Maker Faires, and Other Events

AMSAT Ambassadors provide presentations, demonstrate communicating through amateur satellites, and host information tables at club meetings, hamfests, conventions, maker faires, and other events.

Current schedule:

March 6, 2020, Irving Hamfest, Irving, TX
March 14-15, 2020, Science City on University of Arizona, Tucson, AZ
March 21, 2020, Midwinter Madness Hamfest, Buffalo, MN
March 21, 2020, Scottsdale Amateur Radio Club Hamfest, Scottsdale, AZ
March 28, 2020, Tucson Spring Hamfest, Tucson, AZ
March 29, 2020, Vienna Wireless Winterfest, Annandale, VA
May 2, 2020, Cochise Amateur Radio Assoc. Hamfest, Sierra Vista, AZ
May 8-9, 2020 Prescott Hamfest, Prescott, AZ
May 15-17, Hamvention, Xenia, OH
June 12-13, 2020, Ham-Con, Plano, TX

[ANS thanks Robert Bankston, KE4AL for the above information.]

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AMSAT, along with our ARISS partners, is developing an amateur
radio package, including two-way communication capability, to
be carried on-board Gateway in lunar orbit.

Support AMSAT's projects today at https://www.amsat.org/donate/

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is to serve as an FM Repeater and to downlink donor submitted memes via UHF SSTV protocol. MEMESat is also being created to engage people through the sharing of memes from space and help fund small satellite focused research.

More information available at https://letsgo2space.com/memesat-1-3/

[ANS thanks Michael Frazier, KJ5Z for the above information.]

* Two Commercial Satellites Link Up for First Time

A Northrop Grumman robotic servicing spacecraft has hooked up with an aging Intelsat communications satellite more than 22,000 miles over the Pacific Ocean, accomplishing the first link-up between two commercial satellites in space, and the first docking with a satellite that was never designed to receive a visitor.

Northrop Grumman's first commercial Mission Extension Vehicle, or MEV 1, will take over propulsion responsibilities for Intelsat 901, which is running low on fuel after more than 18 years in service relaying data and television signals. MEV 1 is the first spacecraft of its kind, and officials say the successful link-up with Intelsat 901 is a harbinger for a new era of commercial satellite servicing.

The automated docking early Tuesday also marked the first connection of two satellites in geosynchronous orbit, a region high above the equator where spacecraft move at speeds that match the rate of Earth's rotation.

Complete information at https://tinyurl.com/ANS-061-Grumman

[ANS thanks SpaceFlightNow.com for the above information.]

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of six post-secondary years in this status.

Contact Martha at the AMSAT office for additional student membership information.

73,
This week's ANS Editor,
Frank Karnauskas, N1UW
n1uw at amsat dot org

Sent via AMSAT-BB(a)amsat.org. AMSAT-NA makes this open forum available to all interested persons worldwide without requiring membership. Opinions expressed are solely those of the author and do not reflect the official views of AMSAT-NA.

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